

The Status of the Claims

Claims 1-20 (Cancelled).

21. (Cancelled).

22. (Previously Presented) A multiple channel system as defined in claim 24, further comprising a digital subscriber line access multiplexer coupled to an output of the second transceiver.

23. (Cancelled).

24. (Currently Amended) A multiple channel system for a twisted pair telephone wire local loop system, comprising:

a subscriber gateway system having a first transceiver coupled to the twisted pair telephone wire, the first transceiver to send and receive via multiple independent channels;

a second transceiver at a central office coupled to the twisted pair telephone wire, the second transceiver to send and receive via the multiple independent channels; and

a plurality of digital filters, operatively coupled to the first and second transceivers, configured to convey implement a frequency translation scheme, wherein the digital filters are to operate according to the frequency translation scheme to move a signal [[via]] to an available frequency band associated with the multiple independent channels, wherein each of the plurality of digital filters has an output, and wherein each of the outputs is to be summed by a summer.

25. (Previously Presented) A multiple channel system as defined in claim 24, further comprising a plurality of digital demodulators and a plurality of digital modulators coupled to the digital filters.

26. (Cancelled).

27. (Withdrawn – Currently Amended) A method of operating a bandwidth allocation system for a twisted pair telephone wire local loop system, comprising:

receiving a bandwidth allocation request at an office controller;

determining if a frequency band is available on a selected twisted pair telephone wire;

when the frequency band is available, determining a ~~filter scheme and a~~ frequency translation scheme to be implemented by a plurality of digital filters to convey a signal via the available frequency band;

transmitting the ~~filter scheme and the~~ frequency translation scheme to a subscriber controller; and

sending a bandwidth allocation available message via the office controller.

28. (Cancelled).

29. (Withdrawn – Currently Amended) A bandwidth allocation system for a twisted pair telephone wire local loop system, comprising:

a subscriber digital filter system coupled to the twisted pair telephone wire;
a subscriber controller to send a control signal to the subscriber digital filter system;
an office digital filter system coupled to the twisted pair telephone wire; and
an office controller to send a control signal to the office digital filter system to cause the digital filter system to convey a signal via an available frequency band by determining a frequency translation scheme to be implemented by the office digital filter system.

30. (Cancelled).

31. (Cancelled).

32. (Withdrawn) A bandwidth allocation system as defined in claim 29, further comprising a subscriber transceiver coupled to the subscriber controller and the subscriber filter system.

33. (Withdrawn) A bandwidth allocation system as defined in claim 29, further comprising a splitter coupled to the twisted pair telephone wire and having a low pass output coupled to a plain old telephone system telephone and a high pass output coupled to the subscriber digital filter system.

34. (Withdrawn – Currently Amended) A bandwidth allocation system as defined in claim 29, wherein the office controller is to receive a bandwidth allocation request and to determine the frequency translation scheme by calculating ~~calculate~~ digital coefficients used to program a digital filter to enable the bandwidth allocation request.

35. (Withdrawn) A bandwidth allocation system as defined in claim 34, wherein the office controller is to transmit the digital filter coefficients to the office digital filter system.

36. (Withdrawn – Currently Amended) A bandwidth allocation system as defined in claim ~~[[34]]~~ 29, further comprising a control channel to convey control information between the subscriber controller and the office controller.

37. (Withdrawn) A bandwidth allocation system as defined in claim 36, wherein the office controller is to transmit the digital filter coefficients to the subscriber controller via the control channel.

38. (Previously Presented) A multiple channel system as defined in claim 24, wherein the first transceiver in the subscriber gateway is to transmit a plurality of frequency division multiplexed signals.

39. (Previously Presented) A multiple channel system as defined in claim 24, wherein the first transceiver in the subscriber gateway is to transmit a plurality of time division multiplexed signals.

40. (Previously Presented) A multiple channel system as defined in claim 24, wherein the first transceiver in the subscriber gateway is to transmit a plurality of code division multiplexed signals.

41. (Previously Presented) A multiple channel system as defined in claim 24, further comprising a local circuit switch coupled to an output of the second transceiver.

42. (Withdrawn) A method as defined in claim 27, further comprising sending a bandwidth allocation available message via the office controller.